

REMARKS

This correspondence is responsive to the Official Action mailed September 10, 2003. Claims 1-15 were examined and remain pending. The Examiner rejected claims 1-15 under 35 USC § 103(a) as obvious over the combination of U.S. Patent No. 4,792,850 to Lipton et al. ("Lipton") and U.S. Patent No. 5,327,267 to Tilton et al. ("Tilton"). Applicant has included remarks traversing the prior art rejection.

It is noted that the same Lipton is a named inventor in the present application as well as in both of the cited patents, and Mr. Lipton continues to review and provide comments that are the basis for the following remarks.

The cited Lipton patent is generally relevant since it discloses a pi-cell type liquid crystal modulator for stereoscopic applications. However, notwithstanding the examiner's assertion to the contrary (*see* Paper No. 7 at p. 2), the Lipton patent does not teach or suggest a "segmented" modulator as that term has been defined. By "segmented" we mean that a single modulator panel includes multiple independent liquid crystal cells (i.e., segments) which are, preferably, stacked vertically together one on top of the other, as originally taught by Byatt and discussed in detail in the Background section of the present application.

The cited Lipton patent teaches a push-pull type modulator including two distinct liquid crystal cells 15 and 16 that are arranged in juxtaposition in front of display screen 2 and driven out of phase with each other to alternately deliver circularly polarized images of opposite handedness. These cells 15 and 16 are actually separate modulators, and not stacked together as part of a single physical modulator device. As discussed in the Background section of the present application, applicant believes that the push-pull type modulator is nothing like the Byatt modulator that forms the basis for the present drive method.

There is nothing in either of the cited references that teaches or suggests the use of a segmented pi-cell modulator, much less driving it in the claimed manner. For at least that reason, each of independent claims 1, 6 and 11 are patentable over the cited combination.

The Examiner acknowledges that the cited Lipton patent does not teach an alternating, unipolar waveform that does not change polarity when the pi-cell is energized. However, the Examiner cites Tilton as providing that teaching, stating that "Tilton teaches waveform is

alternating, unipolar and does not change polarity within a time period that the pi-cell is energized” (Paper No. 7 at p. 2). Applicant respectfully disagrees that the method described in the Tilton reference is applicable at all. Tilton is specifically concerned with twisted nematic liquid crystal cells, not with pi-cells. (See Tilton at 2:52-3:42). The physical and optical properties of twisted nematic cells are significantly different such that the problems and solutions associated with one type of LC cell are not necessarily common or even relevant to the problems and solutions associated with the other type of LC cell. Applicant therefore submits that the combination of Lipton and Tilton is improper and would not yield the invention as presently claimed. The Examiner’s reconsideration is requested.

Even if Tilton’s method were relevant to pi-cells, Tilton does not teach or suggest the stutter start waveform (a burst of pulses applied when power first applied to the pi-cell) as recited in dependent claims 3, 8 and 13. Twisted nematic cells function to specification as soon as they are turned on, so there is no need for the stutter start described by applicant.

For all the foregoing reasons, applicant submits that the claims are in condition for allowance and requests reconsideration to that end.

Respectfully submitted,

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